	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	1077	polyimide adj coating	USPAT	2003/04/17 14:13
2	BRS	L2	1700	210/198.2.ccls.	USPAT	2003/04/17 14:13
3	BRS	L3	15	1 and 2	USPAT	2003/04/17 14:13

	Comments	Error Definition	Errors
1			0
2			0
3			0

	U	1	Document ID	Issue Date	Pages
1	☐	☒	US 5938919 A	19990817	12
2	☐	☒	US 4293415 A	19811006	6
3	☐	☒	US 5135627 A	19920804	9

	Title	Current OR	Current XRef
1	Fused silica capillary columns protected by flexible shielding	210/198.2	210/656; 96/101
2	Silica chromatographic column	210/198.2	138/140; 138/141; 138/143; 138/145; 138/146; 138/177; 65/DIG.8; 96/101
3	Mosaic microcolumns, slabs, and separation media for electrophoresis and chromatography	204/455	204/458; 204/466; 204/470; 210/198.2; 210/635; 428/327

	Retrieval Classif	Inventor	S	C	P	2	3	4	5
1		Najafabadi, Bijan Modrek	☒	☐	☐	☐	☐	☐	☐
2		Bente, III, Paul F. et al.	☒	☐	☐	☐	☐	☐	☐
3		Soane, David S.	☒	☐	☐	☐	☐	☐	☐

	Image Doc. Displayed	PT
1	US 5938919	☐
2	US 4293415	☐
3	US 5135627	☐

L Number	Hits	Search Text	DB	Time stamp
1	1077	polyimide adj coating	USPAT	2003/04/17 14:13
2	1700	210/198.2.ccls.	USPAT	2003/04/17 14:13
3	15	(polyimide adj coating) and 210/198.2.ccls.	USPAT	2003/04/17 14:13

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1	1077	polyimide adj coating	USPAT	2003/04/17 14:13
2	1700	210/198.2.ccls.	USPAT	2003/04/17 14:13
3	15	(polyimide adj coating) and 210/198.2.ccls.	USPAT	2003/04/17 14:13

Current US Original Classification - CCOR (1):

210/198.2

US-PAT-NO: 5938919

DOCUMENT-IDENTIFIER: US 5938919 A

TITLE: Fused silica capillary columns protected by flexible shielding

DATE-ISSUED: August 17, 1999

US-CL-CURRENT: **210/198.2**, 210/656 , 96/101

APPL-NO: 08/ 859349

DATE FILED: May 20, 1997

PARENT-CASE:

This application is a continuation of U.S. patent application Ser. No. 08/577,270, filed Dec. 22, 1995, now abandoned.

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Detailed Description Text - DETX (23):

In the shielded column 110, the capillary 112 advantageously has a **polyimide coating** because an uncoated capillary 112' can easily break as it is slip-fitted into the shield tubing 114. A commercially available capillary 112 is coated with a polyimide layer that covers the external surface of the capillary 112 and has a thickness of about 1 .mu.m. It is, however, feasible to use an uncoated capillary 112' if the shield tubing 114 is molded onto the uncoated capillary 112', or if the tubing 114 and uncoated capillary 112' are extruded at the same time. There is substantially less handling of the

capillary 112' involved in molding or simultaneous extrusion than in producing a slip fit.

Current US Original Classification - CCOR (1):

210/198.2

US-PAT-NO: 4293415

DOCUMENT-IDENTIFIER: US 4293415 A

TITLE: Silica chromatographic column

DATE-ISSUED: October 6, 1981

US-CL-CURRENT: **210/198.2**, 138/140 , 138/141 , 138/143 , 138/145 , 138/146
, 138/177 , 65/DIG.8 , 96/101

APPL-NO: 06/ 034103

DATE FILED: April 27, 1979

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Detailed Description Text - DETX (5):

The inner diameter of the silica tubes T is determined by chromatographic considerations and will generally be between 0.1 mm. and 0.4 mm. The outer diameter should be sufficiently small to provide the desired flexibility and consequent ruggedness without making the wall of the tube so thin that it will be crushed in use. Outer diameters between 0.15 mm. and 2.0 mm. have been found satisfactory. **Polyimide coatings** P having a thickness of approximately 0.05 mm. and silicon nitride coatings SN having a thickness of approximately 20 nanometers have been found satisfactory, but considerable latitude is permissible. A metal coating of approximately 0.025 mm. is useful. If the column is to be used at lower temperatures such as 250.degree. C., a single coating of silicone rubber or the equivalent is satisfactory.

US-PAT-NO: 5135627

DOCUMENT-IDENTIFIER: US 5135627 A

TITLE: Mosaic microcolumns, slabs, and separation media for electrophoresis and chromatography

DATE-ISSUED: August 4, 1992

US-CL-CURRENT: 204/455, 204/458 , 204/466 , 204/470 , **210/198.2** , 210/635 , 428/327

APPL-NO: 07/ 597528

DATE FILED: October 15, 1990

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Brief Summary Text - BSTX (10):

Recently, microcapillary tubes have been developed for use in microcapillary gel electrophoresis (high-performance capillary electrophoresis, HPCE). These tubes, generally formed of fused silica with an outer **polyimide coating,** wall thickness in the range of 25 to 40 microns and inner diameter in the range of 25 to 100 microns, are filled with a polyacrylamide gel, the ends placed in an appropriate buffer, and an electric field applied to the gel. The advantage of the HPCE is that the heat resulting from the applied electrical field is efficiently removed due to the high surface area, so a higher current can be applied, thereby decreasing the time required to achieve the desired separation.

Current US Cross Reference Classification - CCXR (4):

210/198.2